

# Michigan State Industries Computers for Schools Program & Geographical Information Systems

Michigan State Industries

# MSI-Ryan Correctional Facility



# Computers For Schools (CFS)

- The Computer for Schools program provides an inexpensive computing solution to schools and non-profit organizations throughout the State of Michigan.
- MSI, in conjunction with CFS, trains prisoners to refurbish computers, providing them with nationally recognized certification as well as marketable job skills.
- Microsoft has recognized MSI as an authorized refurbishing facility which allows us to install Windows 98 and 2000 to our systems.

# Geographical Information Systems – (GIS)



- This high-tech factory teaches prisoners to use both geographical data processing tools, and AutoCAD, to provide sorely needed digitizing services to understaffed state and local agencies.

# Geographical Information Systems – (GIS)

## GIS's current work load:

- Geo-referencing and framework mapping for MDOT.
- Lake and drainage mapping for DNR.
- AutoCAD mechanical and blueprint drawings for MDOC.

# Recycling

- **Local municipalities conduct recycling drives where old computers and monitors are collected (for a fee). These old systems contain toxic chemicals such as lead and arsenic that can seep into the surrounding land if simply dumped. MSI gets a portion of the fee to take these systems for recycling/reuse.**

# Recycling

- Currently there are 5 County Landfills that voluntarily send us used electronic items for recycling.
- Delta County
- Tuscola County
- Genesee County
- Isabella County
- Clare County





# Recycling



- **Computer systems that are no longer viable are disassembled. The scrap materials are sold to reclamation centers where precious metals and other reusable items are removed.**

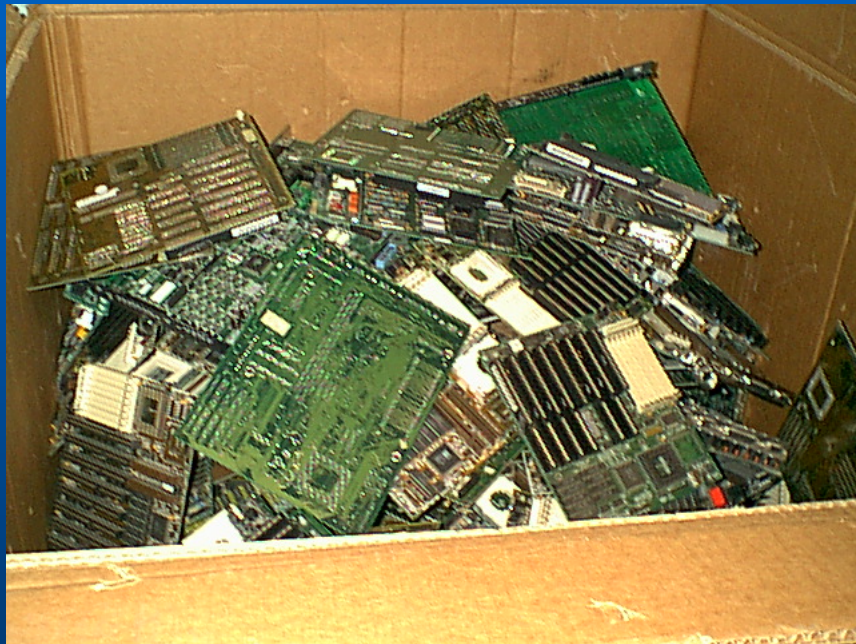


# Recycling



Non-useable items are dismantled, separating the housings from their internal components.

# Recycling



Removed internal components are sorted and stored by like items.

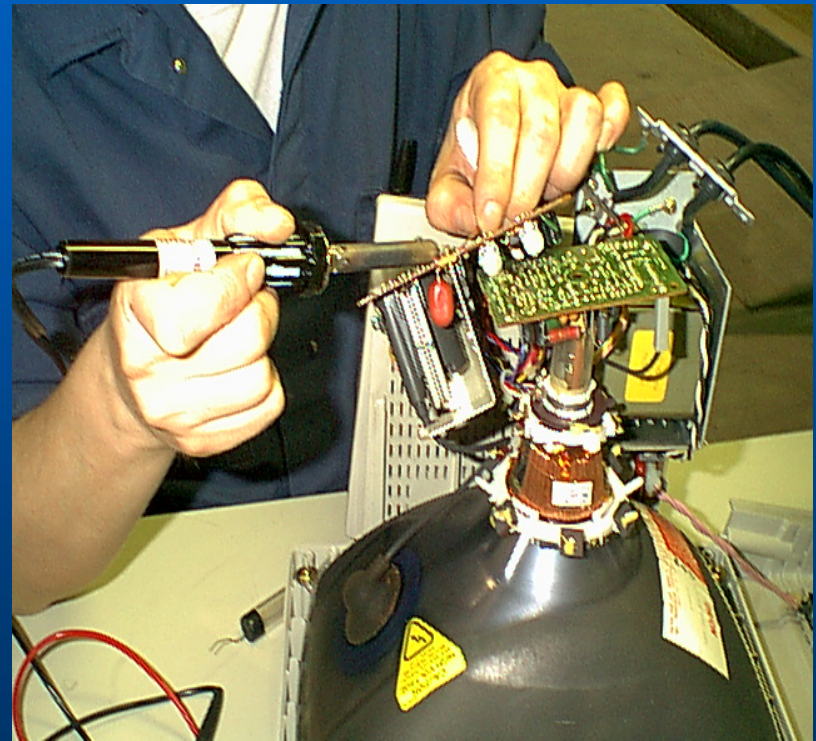
# Recycling

- **Monitors less than 15" or deemed unusable are disassembled. The plastic, metal, and circuitry, are sold as scrap to recyclers. MSI helps to support the recycling efforts by paying for the disposal of the leaded glass tubes. These tubes are shipped to smelting operations where they are melted down into core components (lead & glass).**



# Recycling

- **Monitors are disassembled down to the tubes. The tubes are then carefully packaged for transport to a local recycler.**



# Recycling

- Since lead is one of the most reusable metals in the world, it can be reclaimed and reused over and over again. The melted glass (silica) can then be mixed with new materials and used to create new monitors. This cycle of recovery helps to prevent lead contamination of the ground and water around land fills.

# Recycling

- We structured our recycling area based on recommendations from the Department of Environment Quality (DEQ). These guidelines allowed us to quickly establish ourselves as a safe and environmentally sound operation.



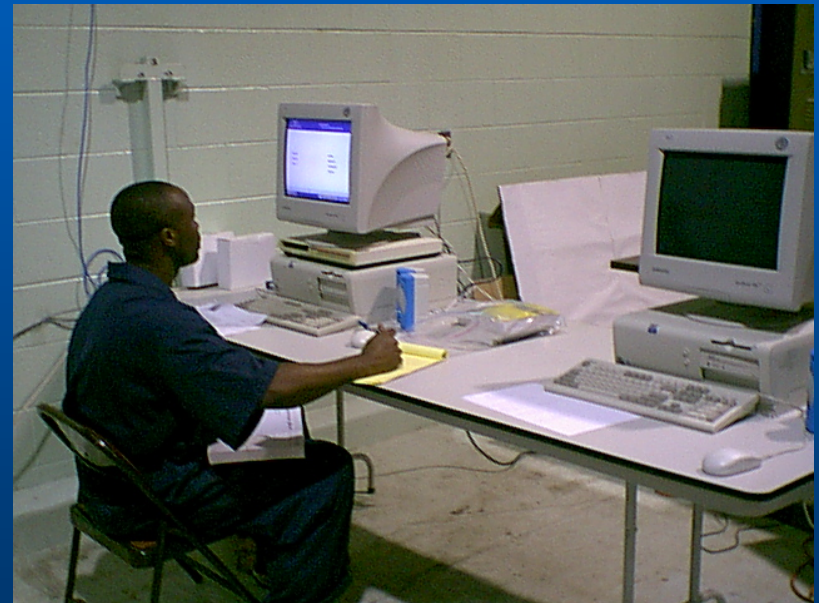
# Start the day



We provide a real world working environment. All the prisoners are required to punch in/out at the start/finish of the day. Prisoners who are tardy will have their pay docked accordingly. Excessive tardiness can result in termination.

# Training

- Most of our training materials are computer based. Study guides, testing materials, and simulations can be accessed at the prisoner's own pace.



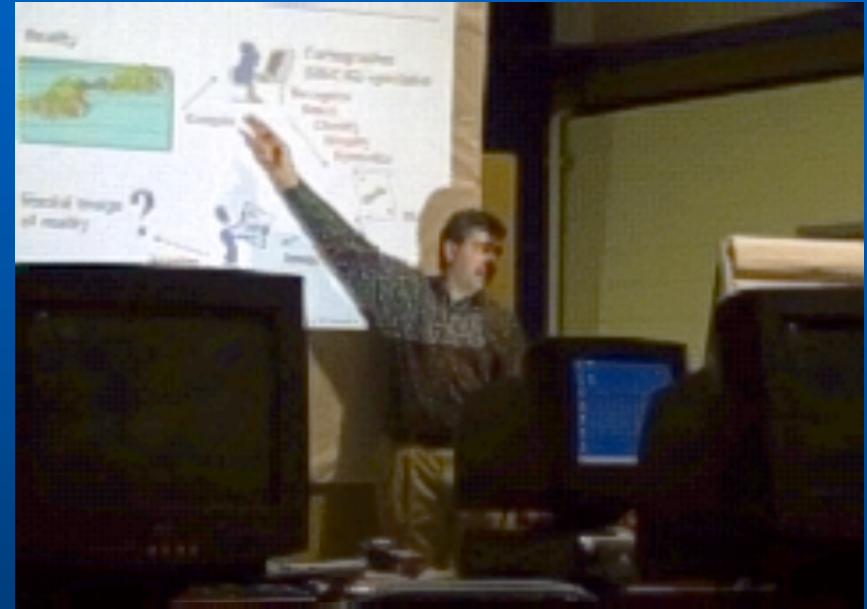
# Training



Some training sessions are real world scenarios where prisoners are required to research, plan out, and bid on, the installation of a computer network for a new or existing company.



# Training



Graduates of our A+ and GIS training courses will provide us with a pool of certified technicians, to replace those who parole out.

# Receiving



Equipment is delivered to the factory in palletized bundles.

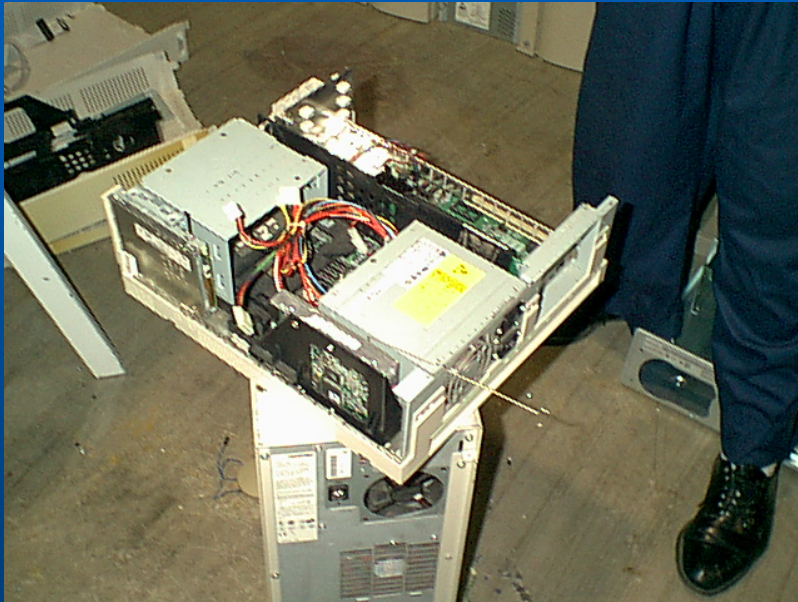
# Receiving

- All equipment entering the factory is identified, sorted, and logged for entry into our database.





# Receiving



- All equipment is inspected by staff for possible contraband during the initial inventory.

# Receiving



- Once a computer has been inventoried, the memory and hard drives are removed and placed in the parts crib for testing and DOD wipe.

# Recycling

- Hard drives which may contain sensitive data are removed during the inventory process. The data is destroyed by wiping the drives according to DOD specifications, or the drive is simply destroyed with the use of a drill press.



# Inventory



Our clerks have entered over 30,000 items into our database, which continues to grow with each new arrival.



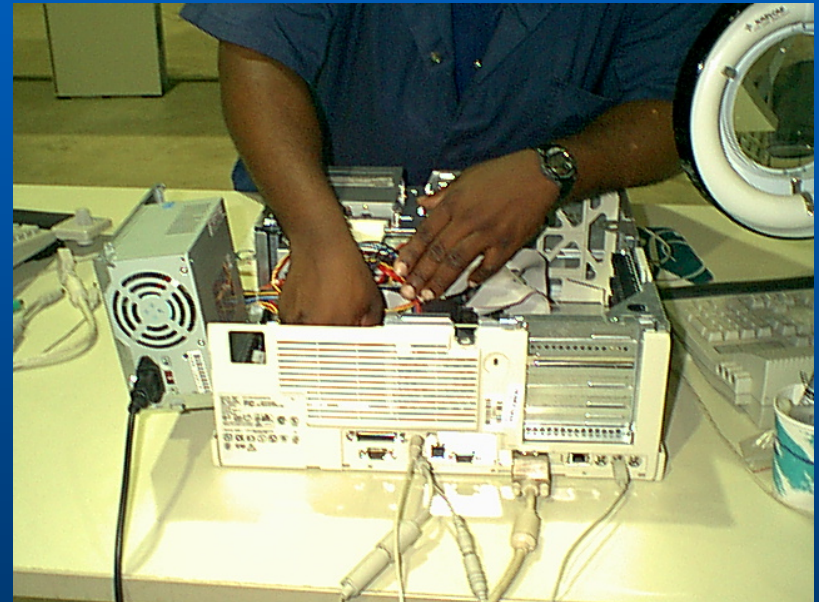
# Production



Every day prisoners pull items from our intake area for use in production. All systems are thoroughly inspected and cleaned by the prisoners before they begin the configuration routine.

# Production

- **Systems are configured to meet our minimum requirements. Video, sound, and network cards, as well as memory, may be added or removed.**





# Production

- Before a system is powered up, the prisoners insert a specially programmed disk which performs a complete secondary formatting of the hard drive. Once the drive is formatted, the new operating system can be loaded.



# Monitors



A complete set of diagnostic utilities and “burn in” are performed on all monitors to ensure their operational status.

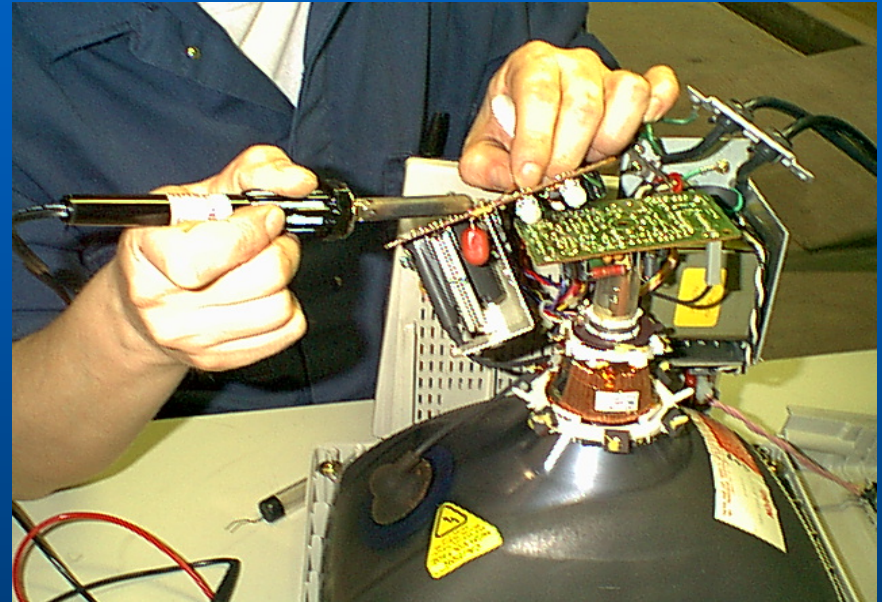
# Printers



A functionality test is conducted to determine if a printer is still performing within the normal operational limits. A network test may also be performed if the printer is so equipped.



# Depot level maintenance



Although we do not teach electronics technology, we do have two Electronic Tech positions. These positions perform all our depot level repairs and are reserved for prisoners who have the documented education and experience.

# Completed systems



Completed systems are palletized and shrink wrapped for storage. Units are stored by make and model for quick retrieval.



# Shipping



Once sold, quality control performs a final test of the system. The system is then wrapped in plastic, placed in a shipping box, and secured with packing material made of recycled cardboard.



# Accomplishments

- MSI currently provides computers to Habitat for Humanity in conjunction with the Prison Build Program.



# Accomplishments



- Life Phase II is the first community center in Detroit running MEAP training software on MSI computers. MSI staff installed the computers and wired the building for networking.

# Accomplishments

- **Conner Creek Academy will be the first of many Charter Schools to have an entire computer network installed by MSI. Additional installations in Detroit and Flint are currently being discussed.**

